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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,464	01/03/2001	Hideki Yamanaka	826.1662	1562
21171	7590	06/27/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			STRANGE, AARON N	
			ART UNIT	PAPER NUMBER
			2153	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,464

Applicant(s)

YAMANAKA, HIDEKI

Examiner

Aaron Strange

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6 and 8-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 8-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-2,4-6,8-11, and 15-17 have been considered but are moot in view of the new ground(s) of rejection.
2. However, with regard to Applicant's assertion that the present invention "is not limited to converting data of one TCP packet into one packet of the targeted transfer protocol, and a number of packets may be combined into one packet" (Page 10, Lines 15-18 of Remarks), it is noted that such a limitation does not appear in the present claims. No language currently present in the claims recites combining multiple packets into a single packet. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
3. Applicant's arguments with respect to claims 12-14 have been fully considered but they are not persuasive.
4. With regard to claim 12, and Applicant's assertion that Toporek fails to teach "continuous use to increase a throughput" and instead teaches some sort of "passive allowance" (Page 9, Lines 1-4 of Remarks), the Examiner respectfully disagrees. Toporek teaches the use of a large window to maintain a constant bandwidth-delay product to window size ratio. A large window is used since the bandwidth-delay product

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over the satellite link is much larger than the terrestrial link. Maintaining this ratio results in high throughput over the connection (Col 7, Lines 27-36). In fact, Toporek specifically discloses the method "includes a novel satellite protocol, which provides improved throughput" (Col 6, Lines 63-65).

5. With regard to claims 13 and 14, and Applicant's assertion that "Kirkby does not teach that a charging device determines whether or not the request from the client is to be issued to the server" (Page 12, Lines 21-22 of Remarks), the Examiner respectfully disagrees.

Kirkby discloses determining whether a request from a client is to be issued to the server since the service provider is charged only for data which is directed toward its' servers (Col 4, Lines 62-65 and Col 5, Lines 8-12) and users have the option of terminating a call if the tariff is judged to be too high (Col 5, Lines 20-30). This requires determining if the request is to be directed as well as the client and server involved in the connection.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1,2,4-11, and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. With regard to claim 2, the term "in an application protocol level" is unclear. It is unclear if the term is being used to describe the second protocol or the location of the conversion between protocols.

9. With further regard to claim 2, the limitation "in an application protocol level where a size of a data transfer window in a transport protocol level can be changed" is unclear. It is unclear what relationship the "transport protocol level" has to the protocols. It appears that Applicant may be referring to the transport protocol which carries the application level protocol, such as HTTP over TCP, and stating that the transport protocol has a varying window size. It has been interpreted as such for the purpose of applying prior art.

10. With further regard to claim 2, the limitation " a converted window size" is unclear. It is unclear if a "converted window size" is the same as a changed window size, as previously described in the claim.

11. Claims 6, 10, 11, 16, and 17 contain similar recitations as those discussed with regard to claim 2, and are rejected under the same rationale.

12. All claims not individually rejected are rejected by virtue of their dependency from the above claims.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 2,6,10,11,16, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Sridhar et al. (US 6,266,701).

15. With regard to claims 2, 10, and 16, Sridhar discloses a communicating system for relaying a communication between a server and a client, comprising:

a receiving device (gateway) receiving data transmitted from the server to the client (Col 9, Lines 18-19);

a converting device (gateway converts data from HTTP to modified HTTP) (Col 9, Lines 49-51) converting a first protocol of the received data (HTTP) into a second protocol (modified HTTP) in an application protocol level (Col 9, Lines 4-8) where a size

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of a data transfer window in a transport protocol level can be changed (XTP supports sliding windows) (Col 10, Line 65 to Col 11, Lines 4), the second protocol allowing a larger amount of data to be transferred at a time (Col 5, Lines 4-22);

a multiplexing device multiplexing data of multiple connections converted by said converting device so that a connection with a converted window size in the transport protocol level can be used continuously (Col 12, Lines 25-45); and

a transmitting device transmitting data to a network (gateway forwards packets over the network)(Col 11, Lines 23-25).

16. Claims 6, 11, and 17 recite substantially identical subject matter to claims 2, 10, and 16, and are rejected under the same rationale, since the gateway disclosed by Sridhar sends and receives traffic in both directions on behalf of the client.

17. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Toporek et al. (US 6,460,085).

18. With regard to claim 12, Toporek discloses a communicating method, comprising: forming a virtual tunnel (TCP over satellite) having a multiplexing protocol (XTP, modified TCP or XTP-like protocol), where a size of a data transfer window in a transport protocol sent within a multiplexing protocol can be changed (window sizes can be adjusted) (Col 7, Lines 27-28) and a connection with a converted window size in the transport protocol can be used continuously (Col 11, Lines 10-14), for hiding a network

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delay (connection appears to occur immediately) that takes place between a server and a client (client and server have no knowledge of satellite link) (Col 13, Lines 7-21); and continuously using (Col 11, Lines 10-14) the virtual tunnel as a communication bypass between the server and the client so as to increase a throughput between the server and the client (larger windows allow higher throughput) (Col 7, Lines 27-36).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 1,4,9, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar et al. (US 6,266,701) in view of Toporek et al. (US 6,460,085).

21. With regard to claims 1,9, and 15, while the system disclosed by Sridhar shows substantial features of the claimed invention (discussed above), it fails to disclose a buffer buffering data transmitted from the server to the client and accelerating data output from the server so as to increase throughput assigned to a connection to the client by the server.

Toporek discloses a similar system in which data transfer is accelerated across an XTP connection. Toporek teaches buffering data transmitted from the server to the client and accelerating data output from the server (Col 7, Lines 27-36) so as to

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increase a throughput assigned to the connection to the client by the server (Server can get a linear increase in throughput for an increase in window size) (Col 17, Lines 33-52).

This would have been an advantageous addition to the system disclosed by Sridhar since it would have increased the throughput of the connection, resulting in faster downloads for the client.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to buffer data to increase a throughput assigned to the connection, resulting in faster downloads for the client.

22. With regard to claim 4, while the system disclosed by Sridhar shows substantial features of the claimed invention (discussed above), it fails to disclose an idling device performing an idling operation corresponding to a resource assigned to the client, wherein said transmitting device transmits data after the idling operation is completed.

Toporek discloses a similar system in which data transfer is accelerated across an XTP connection. Toporek teaches the use of a rate control module which determines whether to send data across the satellite link immediately, or to buffer it and deliver it at a later time (Col 10, lines 60-63). This would have been an advantageous addition to the system disclosed by Sridhar since it would have allowed the gateway to control the rate of transmission of data across the link, controlling congestion.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an idling device to perform an idling operation and

transmit the data after the idling operation has completed, as a means to control congestion on the link.

23. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar et al. (US 6,266,701) in view of Kirkby et al. (US 6,671,285).

24. With regard to claim 5, while the system disclosed by Sridhar shows substantial features of the claimed invention (discussed above), it fails to disclose a charging device performing a charging process for a service provider of the server, wherein said charging device receives a request from the client, determines whether or not the request is to be issued to the server, and when the request is to be issued to the server, transferring the request and charging the service provider.

Kirkby teaches a method of charging network users for use of certain network resources. Kirkby discloses that customers (service providers or end users) (Col 5, Lines 7-12) who need wide bandwidth are willing to pay extra for this service (Col 2, Lines 35-40). Since the satellite link disclosed by Sridhar provides significantly higher bandwidth than a terrestrial link, these users would be willing to pay extra to have their data sent over the satellite link. Kirkby further discloses determining whether a request from a client is to be issued to the server since the service provider is charged only for data which is directed toward its' servers (Col 4, Lines 62-65 and Col 5, Lines 8-12) and users have the option of terminating a call if the tariff is judged to be too high (Col 5,

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Lines 20-30). This requires determining if the request is to be directed as well as the client and server involved in the connection.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a charging device to charge a service provider for bandwidth consumed by packets directed toward its' server(s).

25. With regard to claim 8, which is similar to claim 5, Sridhar fails to specifically disclose a charging device for charging users for use of the network.

Kirkby also discloses that the charging device discussed with regard to claim 5 may also be used to charge users for bandwidth they consume (Col 4, Lines 51-67).

Conclusion


26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS
6/22/2005



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